

## **REMARKS**

The present Amendment amends claims 1, 6, 7, 9, 13 and 14, cancels claim 2 and leaves claims 2-5, 8, 10-12 and 15-18 unchanged. Therefore, the present application has pending claims 1 and 3-18.

In paragraph 1 of the Office Action the Examiner provisionally rejected claims 1-18 under the 35 USC §101 as claiming the same invention as that of claims 1-18 of copending application Serial No. 10/628,516 filed July 29, 2003. As indicated above, claim 2 was canceled. Therefore, this rejection with respect to claim 2 is rendered moot. This rejection with respect to the remaining claims is rejection is traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 1 and 3-18 are not the same invention as that of claims 1-18 of the copending application. Therefore, reconsideration and withdrawal of this provisional rejection is respectfully requested.

Amendments were made to each of the independent claims so as to more clearly recite that when a received access request is a write request and the contents to be written are log information, the present invention performs the following steps including chaining the log records for each transaction to have a plurality of log record chains held in a log management table, deleting, when a COMMIT log is found in log information of the log records, information of a transaction of a log record chain including the COMMIT log from the log records chains and updating data in a logical unit in the database area at physical position information in accordance with contents of the log information.

The above described features now more clearly recited in claims 1 and 3-18 are not taught or suggested by claims 1-18 of the copending application. Accordingly, reconsideration and withdrawal of the above described 35 USC §101 rejection of claims 1 and 3-18 is respectfully requested.

In paragraph 2 of the Office Action the Examiner provisionally rejected claims 1-18 under the judicially created doctrine of obviousness type double patenting as being unpatentable over claims 1-19 of copending application Serial No. 10/650,842. As indicated above, claim 2 was canceled. Therefore, this rejection with respect to claim 2 is rendered moot. With respect to the remaining claims 1 and 3-18, Applicants do not agree with this rejection. However, in order to expedite prosecution of the present application filed on even date herewith is a Terminal Disclaimer obviating this rejection. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

It should be noted that the filing of the Terminal Disclaimer was not intended nor should it be considered as an agreement on Applicants part that the features recited in claims 1 and 3-18 are taught or suggested by the claims of the copending application. The filing of the Terminal Disclaimer was simply intended to expedite prosecution of the present application.

Claims 1-18 stand rejected under 35 USC §102(b) as being anticipated by Mohan (U.S. Patent No. 5,280,611). As indicated above, claim 2 was canceled. Therefore, this rejection with respect to claim 2 is rendered moot. This rejection with respect to the remaining claims 1 and 3-18 is traversed for the following reasons. Applicants submit that the features of the present invention as now more clearly recited in claims 1-18 are not taught or

suggested by Mohan whether taken individually or in combination with any of the other references of record. Therefore, Applicants respectfully request the Examiner to reconsider and withdraw this rejection.

As noted above, the present invention is directed to a database processing method for performing processing by which contents of database processing carried out on a computer are forced to a database in a storage unit connected through a network to the computer, the storage unit, the database processing system corresponding to the database processing method and a database processing program having computer readable codes stored on a storage medium for execution by the computer.

The present invention provides a technique capable of reducing a load on input/output processing between a host computer and a storage unit subsystem when the contents of database processing carried out on a buffer of the host computer are reflected on a database area in the storage unit subsystem. The Examiner's attention is directed to page 3, lines 2 1-27 of the present application.

According to the present invention, there is provided a database processing method as shown in Figs. 8-10 for performing processing by which contents of database processing carried out on a computer are reflected on a database in a storage unit connected through a network to said computer. The method includes receiving an access request transmitted from said computer and judging whether said received access request is a write request or a read request, judging whether contents to be written are log information of a plurality of log records indicating contents of database processing carried out on said computer, when the received access request is a write request,

and converting position information indicated in the log information, with reference to a conversion table indicating correspondence of logical position information recognized in said database processing on the computer, to physical position information in the storage unit when said contents to be written are the log information.

Further, according to the present invention, when the received access request is a write request and the contents to be written are log information, the method further includes chaining said plurality of log records for each transaction to have a plurality of log record chains held in a log management table, deleting, when a COMMIT log is found in log information of the log records, information of a transaction of a log record chain including the COMMIT log from the log record chains, and updating data in a Logical Unit (LU) in the database area at physical position information in accordance with contents of the log information.

Thus, as per the present invention, as explained in page 27, lines 2-7 and page 31, lines 1-13 of the present application, update is performed using, log information, one of a committed transaction and it is possible to omit input/output processing to be performed when the contents of database processing carried out on the buffer of the host computer are reflected on the database area on the storage unit sub-system on the basis of the log information.

The various features of the present invention as recited in the claims are fully supported by the descriptions in page 28, lines 4-8; page 31, lines 1-4; page 31, lines 5-8, and page 26, lines 9-14 and the drawings, especially in Figs. 1, 3, 4, 5, 8, 9, and 10 of the present application.

The above described features of the present invention now more clearly recited in the claims are not taught or suggested by any of the references of record whether taken individually or in combination with each other. Particularly, the above described features of the present invention now more clearly recited in the claims are not taught or suggested by Mohan.

Mohan simply teaches data recovery by use of log information. However, at no point is there any teaching or suggestion in Mohan of the above described features of the present invention now more clearly recited in the claims.

Particularly, there is no teaching or suggestion in Mohan that if a received access request is a write request and the contents to be written are log information, then the log records are chained for each transaction to have a plurality of log records chain held in a log management table, that when a COMMIT log is found in log information of the log records, information of a transaction of a log record chain including the COMMIT log from the log record chain is deleted, and that data in a logical unit in the database area at physical position information in accordance with the contents of the log information is updated.

Such features of the present invention as recited in the claims are clearly not taught or suggested by Mohan.

Thus, Mohan fails to teach or suggest that when the received access request is a write request and the contents to be written are log information, the database processing further includes chaining the log records for each transaction to have a plurality of log records chains held in a log management table, deleting, when a COMMIT log is found in log information of the log

records, information of a transaction of a log record chain including the COMMIT log from the log record chains, and updating data in a logical unit in the database area at physical position information in accordance with contents of the log information as recited in the claims.

Therefore, Mohan fails to teach or suggest the features of the present invention as recited in claims 1 and 3-18. Accordingly, reconsideration and withdrawal of the 35 USC §102(b) rejection of claims 1 and 3-18 as being anticipated by Mohan is respectfully requested.

The remaining references of record have been studied. Applicants submit that they do not supply any of the deficiencies noted above with respect to the reference utilized in the rejection of claims 1-18.

In view of the foregoing amendments and remarks, applicants submit that claims 1 and 3-18 are in condition for allowance. Accordingly, early allowance of claims 1 and 3-18 is respectfully requested.

To the extent necessary, the applicants petition for an extension of time under 37 CFR 1.136. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, or credit any overpayment of fees, to the deposit account of MATTINGLY, STANGER, MALUR & BRUNDIDGE, P.C., Deposit Account No. 50-1417 (500.42992X00).

Respectfully submitted,

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